



Ninety-Ninth Commencement

Class of 2010



UNIVERSITY OF
MARY WASHINGTON

Ninety-Ninth Commencement

Class of 2010

*Dodd Auditorium
George Washington Hall
University of Mary Washington
Fredericksburg, Virginia*

*Friday, the Seventh of May
Two Thousand and Ten*

BOARD OF VISITORS

Nanalou W. Sauder '56, <i>Rector</i>	Lexington, Virginia
Daniel K. Steen '84, <i>Vice Rector</i>	Arlington, Virginia
Patricia B. Revere '63, <i>Secretary</i>	Midlothian, Virginia
Mary J. Berry.....	Gainesville, Virginia
Randall R. Eley.....	Springfield, Virginia
Martha K. Leighty '75.....	Richmond, Virginia
Princess R. Moss '83.....	Richmond, Virginia
J. William Poole.....	Fredericksburg, Virginia
Xavier R. Richardson.....	Spotsylvania, Virginia
Russell H. Roberts.....	Fredericksburg, Virginia
C. Maureen Stinger '94.....	Richmond, Virginia
Pamela J. White '74.....	Baltimore, Maryland

COMMENCEMENT MARSHALS

<i>Grand Marshal</i>	Stephen P. Stageberg
<i>Faculty Marshals for the Candidates for Degree</i>	Jodie L. Hayob, Joseph W. Nicholas

ELECTED REPRESENTATIVES OF THE GRADUATING CLASS

Honor Council Representative.....	Katrina M. Caras
Honor Council Representative.....	Sydney L. Crowder
Honor Council Representative.....	Kara L. Mann

A MESSAGE FROM THE ACTING PRESIDENT



Dear Graduates,

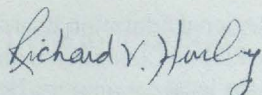
It gives me great pleasure to congratulate you for the remarkable achievement that is celebrated today. You have met the challenge of rigorous and stimulating course work, experienced one-on-one interaction with faculty members, and engaged in innovative project development. Among the distinguished list of graduates today are exemplary educators and business leaders.

The universal characteristic, though, shared by all gathered here is something unique to this institution: the Mary Washington experience. While intangible and hard to describe, it provides graduates an edge in their pursuits and propels them into significant careers.

I am grateful for the opportunity to be at the helm of this premier university, which has distinguished itself by its regional engagement and the achievements of its alumni. As the University of Mary Washington's reputation continues to rise, a diploma from this University will only increase in value.

On behalf of UMW, I am proud to congratulate you for reaching this milestone, and I wish you every success in future endeavors.

Sincerely,

A handwritten signature in cursive script that reads "Richard V. Hurley".

Richard V. Hurley
Acting President

COMMENCEMENT SPEAKER

JOHN H. CHICHESTER



John H. Chichester represented the Fredericksburg area for nearly 30 years in the Virginia Senate, and he has long been a friend of education.

The Stafford County native played a key role in the establishment of the University of Mary Washington's Stafford campus. Chichester was elected to the Virginia Senate for seven consecutive terms and served from December 1978 until his retirement in January 2008. At that time, he was the longest-serving Republican in the Virginia Senate and the senior member of his party. He served as the Senate's President pro tempore during his last eight years in office.

While in the Senate, Chichester focused much of his attention on public education and higher education. As chairman of the Senate Finance Committee's Subcommittee on Education, he worked tirelessly to develop policies and secure funding to advance public schools, colleges, and universities. Most recently, he served as co-chairman of the Joint Subcommittee Studying Public Funding of Higher Education in Virginia and chairman of the Joint Subcommittee on Administrative and Financial Relationships in Higher Education. In the 1990s, Chichester served as chairman of the Commission for the Future of Higher Education in Virginia.

In addition, he was a gubernatorial appointee to the Southern Regional Education Board and a member of the National Conference of State Legislatures' Blue Ribbon Commission on Higher Education. Chichester also has been active in business and the local community. He was a member of the Board of Directors of the National Bank of Fredericksburg from 1984 to 2007, serving as the Board's chairman from 2003 to 2007. He is currently Chairman of the Board of Virginia Partners Bank, a community bank that serves the Fredericksburg area.

COMMENCEMENT PROGRAM

Acting President Richard V. Hurley, Presiding
Friday Evening, Seven Thirty O'Clock, Dodd Auditorium



Music provided by the University of Mary Washington Faculty Brass Quintet.

PROLOGUE

Broadway One-Step King, arr. Clark
Contrapunctus IX, BWV 1080 Bach, arr. Fote
Canzona per sonare No. 1 "La Spiritata" Gabrieli, ed. King
Second Suite in F for Military Band Holst, arr. Sabourin
I. March
Festivo for Brass Quintet Curnow

PROCESSIONAL

Grand March from Aida Verdi, arr. Barnes
Alma Mater - High on Marye's Hilltop Crotty/Taylor
Arranged for Brass Quintet by David J. Long, UMW Composer-in-Residence

ACADEMIC PROCESSION

The Faculty Marshals for the Candidates for Master's Degrees
The Candidates for Master's Degrees
The Grand Marshal
The Members of the Faculty and Administration
The Eagle Pipe Band
The President of the Alumni Association
The Visitors of the University
The Rector of the Board of Visitors
The Commencement Speaker
The Interim Dean of the College of Arts and Sciences
The Dean of the College of Graduate and Professional Studies
The Provost
The Acting President of the University

NATIONAL ANTHEM Kristen Eno '10
Eric Wolterding '10

WELCOME Jay A. Harper
Provost

INTRODUCTION OF THE ACTING PRESIDENT Provost Harper

GREETINGS AND INTRODUCTION OF THE RECTOR

OF THE BOARD OF VISITORS Richard V. Hurley
Acting President

GREETINGS Nanalou West Sauder '56
Rector, Board of Visitors

INTRODUCTION OF SPEAKER Acting President Hurley

COMMENCEMENT ADDRESS..... The Honorable John H. Chichester

ANNOUNCEMENT OF SPECIAL AWARDS..... Provost Harper

 Outstanding Student, M. Ed. Program

 Outstanding Student, MBA Program

 Outstanding Student, MSMIS Program

 Presentation of Award..... Meta R. Braymer

 Dean, College of Graduate and Professional Studies

 Outstanding Faculty Award, College of Graduate and Professional Studies

ANNOUNCEMENT OF EMERITA STATUS Provost Harper

GRADUATION CEREMONY

 Presentation of the Candidates for Master’s Degrees.....Dean Braymer

 Rosemary Barra

 Interim Dean, College of Arts and Sciences

 Conferring of the Degrees Acting President Hurley

 Awarding of the Diplomas

SALUTATION..... K. Sue Bridi ’81

 President, Alumni Association

ALMA MATER..... Emilie Begin ’10

 Sam Protich ’10

RECESSIONAL

Trumpet Voluntary..... Stanley, arr. Barnes

POSTLUDE

Promenade from Pictures at an Exhibition..... Mussorgsky, arr. Holcombe

Rondeau..... Moret, arr. Holcombe

Stars and Stripes Forever..... Sousa, arr. Holcombe

SPECIAL AWARDS

GRADUATE AND PROFESSIONAL EXCELLENCE AWARDS

Outstanding Master of Business Administration Student

Paul C. Howerton

Outstanding Master of Education Student

Amanda S. Brown

Outstanding Master of Science in Management Information Systems Student

Joseph E. Guthrie

COLLEGE OF GRADUATE AND PROFESSIONAL STUDIES OUTSTANDING FACULTY AWARD

This award recognizes an exceptional full-time faculty member who demonstrates excellence in teaching and professional leadership, and has taught at the College for at least two years. Recent recipients and their current faculty ranks include:

- | | |
|------|-----------------------------------------------------------------------|
| 2006 | Norah S. Hooper
Associate Professor of Education |
| 2007 | Gail D. Brooks
Professor of Computer Information Systems |
| 2008 | Brenda E. Vogel
Professor of Education |
| 2009 | Kimberley Kinsley
Assistant Professor of Leadership and Management |

FACULTY EMERITA

Faculty members who have served the University of Mary Washington for at least 15 years and who have attained the rank of professor or associate professor are eligible to be considered for emeritus status. This honor, by action of the Board of Visitors, is bestowed this year upon the following distinguished member of the faculty.

Brenda E. Vogel

Professor and Director of Education Programs

As an education professor at Mary Washington for 33 years, Brenda Vogel has taught and advised hundreds of students. She has served, too, as architect and director of the University's popular master of education program, influencing thousands of local educators and school administrators.

Dr. Vogel holds a B.F.A. degree from Virginia Commonwealth University and both a master's and a doctoral degree in education from Virginia Tech. She began her tenure at the University's Fredericksburg campus wearing many hats – professor, coordinator of teacher education services, director of field experiences, education department chair, and interim assistant dean of academic services. During that time, her hard work and dedication was recognized in 1989 when she was the Mary Washington College nominee for both the State Council of Higher Education for Virginia and Council for Advancement and Support of Education teacher awards.

In 1999, Dr. Vogel was asked to tackle an ambitious assignment: create and launch education programs at the campus poised to open in Stafford County. With her can-do spirit, she plunged in, organizing focus groups with potential students and meeting with education officials. Combining their input with her creativity and attention to detail, she crafted post-bachelor's teacher licensure and master of education programs. In August 2000, the first M.Ed. candidates enrolled. With this evening's Commencement, approximately 770 people will have received graduate education degrees, approximately 120 will have earned certificates, and many of these have completed licensure programs.

Through all of her activities over the years, the classroom has given Dr. Vogel some of her fondest memories. Her teaching, coupled with her good humor, has made her popular not only with her students but also with her colleagues. Her accomplishments are numerous, and in 2008, Dr. Vogel was honored with the Outstanding Faculty Award at the Stafford campus.



UNIVERSITY OF
MARY WASHINGTON

CANDIDATES FOR DEGREES

as of April 16, 2010

MASTER OF BUSINESS ADMINISTRATION

Robert Adams
Matthew Donovan Anderson
George David Baker, Jr.
Kristina L. Barbee
Nathan W. Berezan
Soumya Kanti Bhowmic
Amanda Victoria Bresko
Leola D. Britford
Thomas Brooks
Jonathan Michael Brouillette
Lisa Christine Brown
Lisa K. Bruer
Amber Elizabeth Busler
Chad Ryder Cayer
Mark T. Cobb
Mark Coleman
Anthony Michael DiFilippo
Stephen Dudley
Mari Beth Dwyer
Tracy Lin Engle
Ann Elizabeth Evans
Stephanie H. Fedder
Stephanie Dawn Figueroa
William Gregory Floyd
James W. Fowler
Spandana Golla
Duane F. Grabner
Claudia R. Greves
Tonya A. Griffin
Sandra L. Hawley-Shifflett
Krystal Jean Hermes
John Howland Hicks

Paul Creed Howerton
Stephanie A. Johnson
Heather Marie King
Sean T. Liverman
Christina Alma Mammen
Sara McLaughlin
Stacy M. McQuage
Alex Mejia
Chad Allen Messer
John D. Nicolay
Nicholas W. Norko
Jami L. Nosar
Anthony R. Overby
Justice Asamani Owusu-Hienno
Dawn Marie Pruitt
John P. Raschke
Ivan F. Robelly
Michael James Roberts
William James Sage
Sheila Lynn Seal
Asmar P. Shabazz
Christine Shartzter
Scott Hallett Smith
Caleb Stephens
Hazel Earnhardt Stewart
David L. Toms
Destiny Mickleberry Kinsey Townsley
Heather Lynn Traver
Tsogbadrakh Tserenbat
Rhoda E. Walker-Derricotte
Melissa Lynn Yates

**MASTER OF SCIENCE
MANAGEMENT INFORMATION SYSTEMS**

Michelle L. Breon
Edward E. Gray
Brenden Green
Joseph Edward Guthrie

Christopher John Halbert
Craig Gordon Hennessee
Julio M. Mercado
D. Christopher Stewart, Jr.

**MASTER OF BUSINESS ADMINISTRATION
MASTER OF SCIENCE
MANAGEMENT INFORMATION SYSTEMS**

Robert J. Absher, Jr.
Jeremy C. Martin

Joseph Blair Parsons III

MASTER OF EDUCATION

Bianca Katrece Bailey
Jayne Hounshell Baird
Jessica Baker
Heather Anne Ball
Amanda Mariel Bates
Vicki Bennett
Kendra Marie Bockenstedt
Whitney LeNay Borden
Tracy Robin Bramlett
Ashley Dowling Brewer
Amanda S. Brown
Loretta S. Brown
Tawny DeAnne Browne
Paige Lauren Capro
Katrina M. Caras
Karena Jordan Carlson
Ashley Lynne Castillo
Christine Marie Chandler
Catherine Anne Chaney
Tomasz Choroszuca
Terri A. Clements
Allison Kathleen Cline
Sydney Laura Crowder
Elisabeth Evelyn Cunard
Shana Keone Curtis
Kristen Danielle Darling
Chryse Davis
Heather Lang DeCou
Dianne Tharp Demastrie
Kim Marie DeRonda

Brendan O. Downey
Christie Lynn El-Nemr
Anna Carmen Endrizzi
AmyGrace Esch
Maureen Ann Everly
Mary Faha
Christina S. Ferber
Faranda Faye Ferguson
George Arthur Finch
Rossana Maria Finegan
Crystal Richelle Foxx
Peggy Atkins Kendrick Fuller
Heather Nicole Cates Fulkerson
Carol A. M. Gick
Harold Craig Giles
Andrew T. Greene
Pamela Andrella Gresham
Melinda F. Griffith
Moira Dooley Guyton
Cathleen Hannifin
Jennifer Sue Heath
Sylvia Henderson
Angela L. Hoopes
Naomi M. Hudjohn
Cynthia B. Hughes
Stephanie Iero
Tammy Melissa Irwin
Linda Jones
Larissa Anne Joos
Emily Kaye

MASTER OF EDUCATION

Brenda L. Kennedy	Daniel J. Ruppert
Sharon B. Kiple	Sophia P. Ryder
Dawn M. Knight	Donald O'Neil Saunders, Jr.
Maryann Krueger	Charles Oliver Sayers
Sara K. Lawyer	Terry Jo Shackelford
Nate Layne	Lisa Marie Hudson Shuler
Michelle Lembo	Jeremy J. Siefker
Sara Ann Lewis	Brianne Paige Slattery
Suzanne Marie Lloyd	Karen Elizabeth Wade Smiley
Helaine G. Love	James Roy Smith, Jr.
Carrie Lea Lowry	Sherry Leigh Smith
Tiffany Joi Mathews	Christa Stoots
Jennifer McMichael	Daniel Evan Stribling
Deborah L. McMullan	Sarah Sullivan
Lee Ann Mitchell	Kathryn J. Szymendera
Desirée Antoinette Hull Morris	Victoria Lynn Talcott
Taniya Michelle O'Brien	Jessica Player Taliaferro
Sherri Irwin Oesterheld	Amy Nichole Thorne
Jillian Elizabeth O'Neill	Diana Miller Thorpe
Stacy Joy Palmer	Stephanie Ann Travers
Robin Leigh Parrish	Jeffrey Thomas Trigger
Melody Anne Perry	Shannon Nichelle Twyman-Ward
Devra M. Pickett	Elizabeth Sherry Uebelhoer
Rochelle Leone Pierce	Tiffany Marie Walker
Jeanine A. Popescu	Ryan Ward
Vicki Powell	Sean Patrick Weaver
Dana Ramsey	Tracy Marie Wenzel
Elizabeth Mae Reed	Barbara Sue West
Terri Fleming Rivero	Marcia Martinie Wieduwilt
Sara Katherine Roach	Jessica Lynn Wilkerson
Suzanne Marie Rogers	Lucia Yang
Jessica Lynn Roy	Stephanie Trant Yealy

MASTER OF SCIENCE ELEMENTARY EDUCATION

Katherine Ann Andree	Amy Lynn Edwards
Nicole Marie Barrea	Jessica Lauren English
Sarah R. Bosworth	Kaitlin Frankle
Kaitlyn L. Butler	Diana Marie Gledis Gallup
Jaclyn Connors	Caitlyn Marie Gomes
Christine Marie Cooper	Meredith E. Goode
Lindsay Renee D'Adamo	Ainsley Erin Hilburn
Kimberly A. Dennis	Heather Marie Lowe
Mary Elizabeth Dillane	Erika Maria Luera
Carolyn Mary Duffy	Marla Anne Maceyko

MASTER OF SCIENCE ELEMENTARY EDUCATION

Anne Nora Macheel
Elizabeth Ann McCarthy
Casey Lynn Mitchell
Mikaela Mulligan
Stephanie Marie Oswald
Samantha Packard
Katie Ann Palmer
Nicole Elizabeth Pethtel
Emily Kraus Ratzenberger
Casey Amanda Ridlon

Kirsten Wheatley Rowell
Jessica Marie Schatz
Amanda G. Shumaker
Ashley Marie Smith
Kellye Leigh Sorber
Amanda Lee Taub
Caitlin Rose Varley
Kasey Elizabeth Walker
Heather A. Wilson
Christina A. Woolsey

KAPPA DELTA PI

An international honor society in education, Kappa Delta Pi elects those to membership who exhibit outstanding scholarship and a commitment to the teaching profession and to excellence in education. The University of Mary Washington chapter, Nu Xi, was chartered in 1975. These members may choose to wear purple and green honor cords.

Katherine Ann Andree
Nicole Marie Barrea
Sarah R. Bosworth
Brittany Kaitlyn Butler
Jaclyn Connors
Lindsay Renee D'Adamo
Kimberly A. Dennis
Mary Elizabeth Dillane
Carolyn Mary Duffy
Amy Lynn Edwards
Jessica Lauren English
Kaitlin Frankle
Meredith E. Goode
Ainsley Erin Hilburn
Erika Maria Luera
Marla Anne Maceyko

Anne Nora Macheel
Casey Lynn Mitchell
Stephanie Marie Oswald
Samantha Packard
Katie Ann Palmer
Emily Kraus Ratzenberger
Casey Amanda Ridlon
Kirsten Wheatley Rowell
Jessica Marie Schatz
Amanda G. Shumaker
Ashley Marie Smith
Amanda Lee Taub
Caitlin Rose Varley
Kasey Elizabeth Walker
Heather A. Wilson
Christina A. Woolsey

OMICRON-PSI

Established in 1993 to recognize the community and professional contributions of adults who achieve academic excellence, Omicron-Psi requires that members be at least 24 years old; have a minimum cumulative grade-point average of 3.8; currently participate in three community/professional activities of which one must be a professional organization and one must be a community organization; maintain the principles of duty, honor, and service; and maintain and demonstrate high ethical standards in all aspects of life.

Christine Elizabeth Bounds
Allison Kathleen Cline
Heather Lang DeCou
Tracy Lin Engle

Vicki Powell
William James Sage
Thomas Leroy Wortman, Jr.

GRADUATE EXCELLENCE AWARD

EDUCATION

Barbara Bishop Mann '66 Virginia Educator Award

Carolyn Mary Duffy
Diana Marie Gledis Gallup

ACADEMIC CUSTOMS AND DRESS

The origins of many customs of the academic world can be traced to the Middle Ages, particularly the 11th and 12th centuries when the first European universities – Bologna, Paris, and Oxford – were founded.

In their original organization, the universities were like medieval corporations or guilds. In fact, the word “universitas” originally referred to any kind of corporation. The students at the universities were equated to guild apprentices, and so the completion of the apprenticeship was celebrated by a “commencement” marking the beginning of their careers.

In the 12th century, everyone wore gowns. The social and economic status of an individual was shown by the extra features, such as fur trimming, on the gowns. Cloaks with hoods were worn over gowns for protection in bad weather. Degrees began to be awarded in the 13th century, and different styles of gowns and different colors came to represent the various degrees and disciplines.

Over the centuries the styles of dress changed, and by the 17th century, the wearing of gowns by men had virtually ceased. But the universities, particularly those in Britain, continued to be conservative and strict in the manner of academic customs and dress. At Oxford, for instance, candidates for master’s degrees had to swear that they owned a gown and would always wear it at the proper times.

The first American universities were founded on English models. However, the wearing of academic dress was not universal and ceased during the Civil War. The custom was revived in the late 19th century, and in 1895 an academic custom code was adopted that, with modifications, is still used.

Most American universities have the standard black gown with the hood serving to distinguish the individual institution. Some American and European universities have adopted or preserved more distinctive gowns. There are three styles of gowns, distinguished mainly by the sleeves: the bachelor’s gown, with long pointed sleeves; the master’s, with a squared sleeve, cut so the forearm is free; the doctoral, with bell-shaped sleeves with three velvet bands.

The hood is the really distinguishing feature of modern gowns, indicating the degree (the width of the edging band), the discipline (the color of the band), and the college or university (the colors of the lining). Today’s graduates have hoods edged in drab (MBA) or light blue (M.Ed., M.S.). Many faculty members will have blue edging indicating the Ph.D. degree. The faculty will be wearing hoods representing many distinguished institutions of higher education, e.g., maroon and gold for Central Michigan University, red and black for Rutgers University, orange and white for the University of Tennessee, and navy blue and orange for the University of Virginia.

THE ACADEMIC MACE



The tradition of the academic mace began in the late 14th century when two ancient instruments, the royal scepter and the battle mace, were combined to form a symbol of the authority of the president or rector of a university. Noblemen carried the battle mace as both a weapon and staff of command, and the sovereign used the regal scepter as a sign of rulership, justice, and authority.

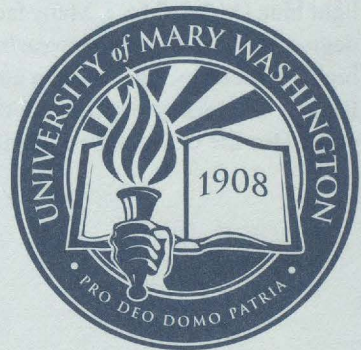
Together with the chain of office, the academic mace indicates that the president of the university is the temporary embodiment of the power, authority, autonomy, and sovereignty vested in the institution represented.

At the University of Mary Washington, the grand marshal carries the academic mace on behalf of the president at academic events such as Commencement exercises, inaugurations, and convocations.

The original University of Mary Washington mace was designed by Asprey and Company of London, England, and was first used for the May 1970 Commencement. The sterling mace carried in today's Commencement ceremony was commissioned to Suzannah Wagner Merritt of Ashland, Va., as a special project of the University's Centennial Celebration in 2008. It comprises numerous symbols of the University, including lapis stones to display the school color; blossoms of dogwood to honor the Virginia state tree; acorns and oak leaves to recall the historic tree at Brompton, home of the president; and a herringbone motif representing Campus Walk. The six prongs are engraved with the six names of the school prior to its becoming a university in 2004; they are adorned with a lapis disc engraved with the University seal. The handle is emblematic of the original Mary Washington mace.

THE UNIVERSITY SEAL

In addition to a book and lamp, signifying knowledge, the University seal denotes the year the institution was founded, 1908, as well as the University motto, *Pro Deo Domo Patria*, translated from Latin to "For God, home, and country."



PRESIDENTIAL COLLAR



Chains of office, also known as collars, originated in the Middle Ages and are worn today by presidents on ceremonial occasions as part of their regalia. The University of Mary Washington chain is a unique design crafted from gold-plated sterling silver with lapis lazuli gem accents. Symbols important to the history of the University are incorporated in every element of the chain. A large medallion depicting the school seal is flanked by white oak leaves modeled after the stately oak tree at Brompton, home of the president. The names of the previous presidents of this institution alternate with its six historical names on links that are connected with blossoms of dogwood, the Virginia state tree. The chain was unveiled during Commencement 2006 and by tradition is presented to each new president to wear during ceremonial occasions.

THE EAGLE PIPE BAND

Performing at today's Commencement ceremony is the Eagle Pipe Band. The band was formed in 1997 with a small number of Mary Washington students and members of the Fredericksburg community. It has grown steadily each year, adding pipers, drummers, and dancers. In 2008, the band won the Ohio Valley Grade V Championship and the Mid-Atlantic Grade V Championship.

Of special interest, the Eagle Pipe Band was founded by and is under the direction of Dr. Raymond B. Scott, Professor of Chemistry at the University of Mary Washington. The tartan worn by the performers was designed by the University to match the school colors. It is registered in Scotland's official registry of tartans.

RATIONAL NOTATIONS

Let R be a ring. A rational notation for R is a set of symbols $\{s_i\}_{i \in I}$ such that each s_i is a rational number and the set $\{s_i\}_{i \in I}$ is linearly independent over \mathbb{Q} . The set $\{s_i\}_{i \in I}$ is called a rational basis for R . If R is a free \mathbb{Q} -module, then the rational basis for R is unique. If R is not a free \mathbb{Q} -module, then the rational basis for R is not unique. The rational basis for R is called a minimal rational basis for R if it has the smallest possible cardinality. The rational basis for R is called a maximal rational basis for R if it has the largest possible cardinality. The rational basis for R is called a standard rational basis for R if it is a minimal rational basis for R and a maximal rational basis for R . The rational basis for R is called a canonical rational basis for R if it is a standard rational basis for R and a maximal rational basis for R .

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THE RATIONAL BASIS

Let R be a ring. A rational notation for R is a set of symbols $\{s_i\}_{i \in I}$ such that each s_i is a rational number and the set $\{s_i\}_{i \in I}$ is linearly independent over \mathbb{Q} . The set $\{s_i\}_{i \in I}$ is called a rational basis for R . If R is a free \mathbb{Q} -module, then the rational basis for R is unique. If R is not a free \mathbb{Q} -module, then the rational basis for R is not unique. The rational basis for R is called a minimal rational basis for R if it has the smallest possible cardinality. The rational basis for R is called a maximal rational basis for R if it has the largest possible cardinality. The rational basis for R is called a standard rational basis for R if it is a minimal rational basis for R and a maximal rational basis for R . The rational basis for R is called a canonical rational basis for R if it is a standard rational basis for R and a maximal rational basis for R .

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NOTATIONS

Alma Mater

All hail, dear Alma Mater,
We sing our praise to you.
High on Marye's Hilltop
You stand forever true;
Born in truth and honor
You ever more shall be,
The model of our future years
And all eternity.

Whene'er we have to leave you
We never will forget,
The lessons you have taught us,
And all the friends we've met;
And we your sons and daughters
Will hold your name on high,
So here's to Mary Washington;
Our love will never die.

– Irene Taylor '47

– Jean Crotty '47



UNIVERSITY OF
MARY WASHINGTON